

PROJECT DESCRIPTION

I. GENERAL

This project involves the reconstruction of an existing Traffic Control Signal with interconnect at the intersection of MD 190 (River Rd) and Little Falls Pkwy in Montgomery County. The existing strain pole signal shall be replaced with mast arm poles. MD 190 (River Rd) is assumed to run in an east-west direction. Video detection shall be used at this intersection.

II. INTERSECTION OPERATION

- The intersection is to operate in a NEMA five-phase, semi-actuated mode, with the MD 190 (River Rd) approaches continuing to run concurrently. An Exclusive left turn phase shall remain in operation for the eastbound approach of MD 190 (River Rd). The pedestrian phase with pushbutton actuation shall continue to be provided across the west leg of MD 190 (River Rd). The pedestrian phases across Little Falls Pkwy shall remain on recall. For side sampling stations shall be provided on both legs of Little Falls Pkwy and the west leg of MD 190 (River Rd) at this intersection. The Little Falls Pkwy approaches shall continue to operate as a side street split phase.
- A full-traffic-actuated, eight-phase controller with video interface, L.A.U. and L.A.U. Panel and all necessary equipment housed in a NEMA size "6" base-mounted cabinet shall be installed at this intersection.

III. SPECIAL NOTES

- The Contractor shall be responsible for terminating all signal cables, excluding interconnect, to the appropriate terminals and shall properly label each cable.
- Disconnecting and splicing of interconnect cable shall be performed by Montgomery County Forces. The contractor shall run the interconnect cable into the base of each cabinet and properly tag the cable. Contact Mr. Bob Gonzales at (240) 777-8761 seventy-two hours in advance of intended work.
- All underground and overhead utilities shown on these plans are schematic only and may not be complete. The Contractor shall be responsible for notifying Miss Utility prior to construction so that all utilities may be located in the field. If the Contractor perceives that a conflict between the utilities and the traffic signal will occur, the Contractor shall notify the Project Engineer immediately so that the conflict may be resolved.

EQUIPMENT LIST

A. EQUIPMENT TO BE SUPPLIED BY S.H.A.

ITEM NO.	DESCRIPTION	QUANTITY
9042	Controller ASC II with telemetry	1 EA
9044	Controller cabinet, size "6"	1 EA
9086	Video detection interface equipment; 1-4 cameras (To be installed by signal shop).	1 EA
9570	Sheet aluminum signs to consist of: (ground mount)	33 SF
	R4-7 "KEEP RIGHT (SYMBOLIC)" sign, (24"x30")	2 EA
	R10-6a Mod "STOP HERE ON RED (ARROW)" sign, (24"x30")	1 EA
	GUIDE SIGN M3-4 "WEST" (24"x12") M1-5 "MD 190" (30"x24") M6-1 "right arrow" (21"x15")	1 EA
	GUIDE SIGN M3-4 "EAST" (24"x12") M1-5 "MD 190" (30"x24") M6-1 "left arrow" (21"x15")	1 EA
9571	Sheet aluminum signs to consist of: (mast arm or pole mount)	116.5 SF
	D3-2 "Little Falls Pkwy" sign, (variable x 16") dual faced, mast arm mounted.	2 EA
	D3-2 "River Rd" sign, (variable x 16") dual faced, mast arm mounted.	2 EA
	R3-5a "THRU ONLY" sign, (30" x 36") mast arm mounted.	1 EA
	R3-5L "LEFT TURN ONLY" sign, (30" x 36") mast arm mounted.	3 EA
	R3-6 "LEFT TURN AND THRU" sign, (30" x 36") mast arm mounted.	1 EA
	R10-11b "NO TURN ON RED" sign, (24"x24") mast arm mounted.	1 EA
	Pedestrian education R10-4(1) sign, (top portion to be left blank) pole mounted.	2 EA
	GUIDE SHIELD ASSEMBLY (48"x75") pole mounted. M3-4 "WEST" (30"x15") M1-5 "MD 190" (48"x36") M6-1 "left arrow" (30"x24")	1 EA
	GUIDE SHIELD ASSEMBLY (50"x51") pole mounted. M3-4 "EAST" (24"x12") M1-5 "MD 190" (30"x24") M6-1 "right arrow" (21"x15")	1 EA

EQUIPMENT LIST

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

ITEM NO.	DESCRIPTION	QUANTITY
1001	Maintenance of traffic per assignment.	3 EA
2001	Class 2 Excavation.	6 C.Y.
2002	Test Pit Excavation	9 C.Y.
5001	Remove existing pavement markings - any width.	2160 L.F.
5007	Heat applied permanent preformed thermoplastic pavement marking letter.	4 EA
5008	Heat applied permanent preformed thermoplastic pavement marking arrow.	4 EA
5009	5" white heat applied permanent preformed thermoplastic pavement marking.	140 L.F.
5010	5" yellow heat applied permanent preformed thermoplastic pavement marking.	980 L.F.
5005	12" white heat applied permanent preformed thermoplastic pavement marking.	1030 L.F.
5006	24" white heat applied permanent preformed thermoplastic pavement marking.	190 L.F.
6001	Furnish and install depressed curb and gutter.	5 L.F.
6002	Standard type A combination curb and gutter 12" gutter pan 8" depth.	10 L.F.
6003	Monolithic concrete median 4", type A-1.	10 L.F.
6004	4" concrete sidewalk.	580 S.F.
8001	Furnish and install concrete for signal foundation.	20 C.Y.
8002	Furnish and install 12" pedestrian signal head section	12 EA
8007	Pre-manufactured camera to controller (100' length) cable	1 EA
8008	Pre-manufactured camera to controller (200' length) cable	1 EA
8009	Pre-manufactured camera to controller (300' length) cable	1 EA
8010	Pre-manufactured camera to controller (400' length) cable	1 EA
8014	Furnish and install 15' T mast arm pole and 50' (cut to 40") mast arm.	1 EA
8014	Furnish and install 15' T mast arm pole and 50' mast arm.	1 EA
8015	Furnish and install 15' T mast arm pole and 60' mast arm.	2 EA
8018	Furnish and install breakaway pedestal pole (10').	2 EA
8018	Furnish and install breakaway pedestal pole (14').	1 EA
8019	Remove and dispose of existing material and equipment per assignment.	1 EA
8024	Disconnect, pull back and reroute cable.	770 L.F.
8028	Furnish and install wood sign supports 4" x 6".	35 L.F.
8029	Furnish and install No. 6 AWG stranded bare copper ground wire.	1090 L.F.
8036	Furnish and install 4" schedule 80 rigid polyvinyl chloride conduit - bored.	335 L.F.
8038	Furnish and install 3" schedule 80 rigid polyvinyl chloride - trenched.	90 L.F.
8039	Furnish and install 4" schedule 80 rigid polyvinyl chloride - trenched.	125 L.F.
8042	Furnish and install 4" schedule 80 rigid polyvinyl chloride - slotted.	225 L.F.
8045	Furnish and install electrical utility service equipment (120/240 V, 1 phase 3 wire system).	1 EA
8052	Furnish and install electrical handhole.	6 EA
8054	Install ground mounted sign.	33 S.F.
8055	Install overhead sign.	116.5 S.F.
8056	Furnish and install video detector camera.	4 EA
8068	Furnish and install 12-pair communication cable, jelly-filled, (underground).	345 L.F.
8073	Furnish and install ground rod - 3/4" x 10'.	8 EA

EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

ITEM NO.	DESCRIPTION	QUANTITY
8075	Furnish and install 12" vehicular traffic signal head section	48 EA
8078	Cut, clean, galvanize and cap traffic signal structure.	1 EA
8081	Furnish and install electrical cable - 2 conductor (No. 14 AWG).	185 L.F.
8082	Furnish and install electrical cable - 3 conductor (No. 14 AWG).	380 L.F.
8083	Furnish and install electrical cable - 5 conductor (No. 14 AWG).	1030 L.F.
8084	Furnish and install electrical cable - 7 conductor (No. 14 AWG).	1225 L.F.
8088	Pedestrian pushbutton and R10-4(1) sign. (Note: Sign to read "PUSHBUTTON TO CROSS RIVER RD".)	2 EA
8093	Install controller and cabinet pole mount. (Note: To be supplied by Montgomery County).	1 EA
8094	Install controller and cabinet base mount.	1 EA
8109	Furnish and install preformed tube square post.	3 EA

C. EQUIPMENT TO BE REMOVED

SHA shall remove all auxiliary equipment from the cabinet. All other removed signal materials are to become property of the contractor.

SEQUENCE OF OPERATION SHEET

TRAFFIC OPERATIONS SECTION
DIVISION OF TRAFFIC ENGINEERING
MONTGOMERY COUNTY, MARYLAND

MD 190
RUNS IN AN
EAST-WEST
DIRECTION

INTERSECTION: MD 190 AND LITTLE FALLS PARKWAY

SIGNAL NO.	SIGNAL HEAD INDICATIONS				
	1,2,3	4,5,6,7,10	8,9,11,13	12,14	15-21
TOTAL:	3	5	4	2	4
LEGEND					
OPTICALLY LIMITED					
R RED					
Y YELLOW					
G GREEN					
ARROW					
FLASHING					

PHASING

NORTH

02 PED

06 PED

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